PEAK

# MIDI SWITCHING PRODUCTS

# FCB4N2

PROGRAMMABLE MIDI FOOT CONTROLLER

# OWNER'S MANUAL

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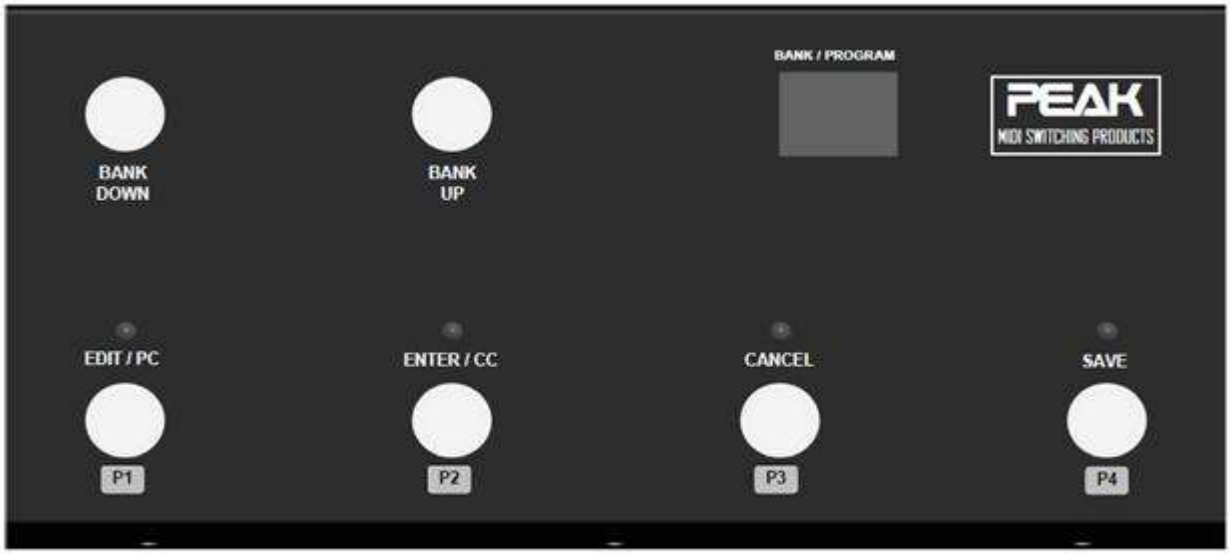
# INTRODUCTION

## Overview.

The FCB4N2 is a programmable MIDI foot controller that supports all standard MIDI devices. This is an upgraded version 2.0 that can be programming with MIDI messages and saved to EPROM memory. Up to 128 memory presets can be arranged in 32 banks of 4 presets. You can assign any MIDI Program Change (PC) and Continuous Controller messages (CC) into each preset (4PC and 8CC messages per preset, all on different MIDI channels).

The FCB4N2 has up/down bank and 4 patch selection buttons, all with high quality heavy duty foot switches that you can feel when pressed. The chassis is made of aluminum, folded by a laser cutting process and finished with a black anodized coating. It is a compact, rugged, simple to use, fully programmable MIDI foot controller.

## Top Panel.




**BANK UP/DOWN SWITCH:** This is used to increase the bank up or decrease the bank down from the current state. The current bank starts from bank#1 up to a maximum of bank#32.

**PRESET SWITCH:** The FCB4N2 has 4 patches in a bank labeled as **P1**, **P2**, **P3** and **P4**. You also use these switches in programming mode to edit, enter, save or cancel.

**BANK/PROGRAM DISPLAY:** The seven segment display has 2 digits showing mode when you are editing/setting a program or displaying the bank number when you are in operating mode. The MIDI number runs from 0 to 127 which means that the displayed number will be from 00 to 2.7. If the number is over 99 it shows the number with a decimal point.

## Back Panel.

**MIDI OUT:** The MIDI out port is used to transmit MIDI messages from the unit to other MIDI device/s. It is an 8 pin MIDI connector so you can supply phantom power to the unit by supply voltage between 9V – 12V to pin 6, 7 (AC or DC, it does not matter) and pin 8 is not used.

**12VAC/DC I/O:** Connect to supply external voltage 9V - 12V (AC or DC is does not matter) with current 200mA minimum. **Do not use voltage over 12V otherwise the unit will be damaged**. There are 2 ports for daisy chaining the input power supply to other MIDI devices (They are not power supply ports).

**Note:** Do not plug into the external power supply socket if you are phantom powering the unit via MIDI a cable.

## Specification

- 1 MIDI OUT with 8-pin DIN connector with supports phantom power on pin 6, 7.
- 2 bank switches, 4 patch switches with heavy duty foot switch.
- Programmable mode with 128 presets, arranged in 32 banks of 4 presets.
- Program Change and Continuous Controller message support (4PC and 8CC messages per preset, all on different MIDI channels)
- Flexible power requirements: 9V-12V, AC or DC, 200mA adapter with a 5.5mm/2.1mm barrel connector. (Adapter is not included)
- Housed in a sleek aluminum chassis and brushed finish with black anodized coating.
- Dimensions approx. : 10.3"W x 4.7"D x 2.0"H (26.2cm x 12.0cm x 5.0cm)
- Weight approx. : 1.5lb (0.7kg)

## Power Connection.

The FCB4N2 has flexible power requirements between 9V-12V, AC or DC, 200mA. If you are using a POD 2.0 (or XT), you can plug the 9VAC power supply to an IO port (select one) and then link the power supply to your POD 2.0 (or XT) unit via the other port. The same voltage/current as the input adapter will be passed on to the POD 2.0 (or XT).

Above picture is an example that using POD 2.0 power supply with the FCB4N2 unit.

# BASIC OPERATION

Please refer to the text that appears under the switches when you are going to use the FCB4N2 unit in the basic operation mode. On power up, the latest preset will be selected and transmitted as a MIDI message via MIDI out (Initial value is Bank#1, preset#1).

## Bank and Preset selection.

Press the **BANK UP** or **BANK DOWN** switch to move/scroll from the current bank to another. The **BANK/PROGRAM** display will flash and no MIDI message will be transmitted until a preset switch is selected (**P1, P2, P3** or **P4** switch). You can hold on the **BANK UP** or **BANK DOWN** switches to scroll past the current bank continuously and the **BANK/PROGRAM** display will loop once it reaches bank #32.

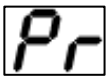
You can select a preset by press the **P1, P2, P3** or **P4** switch, and then the selected preset LED above the switch will be on with MIDI messages being transmitted.

# SETUP MODE AND PRESET PROGRAMMING

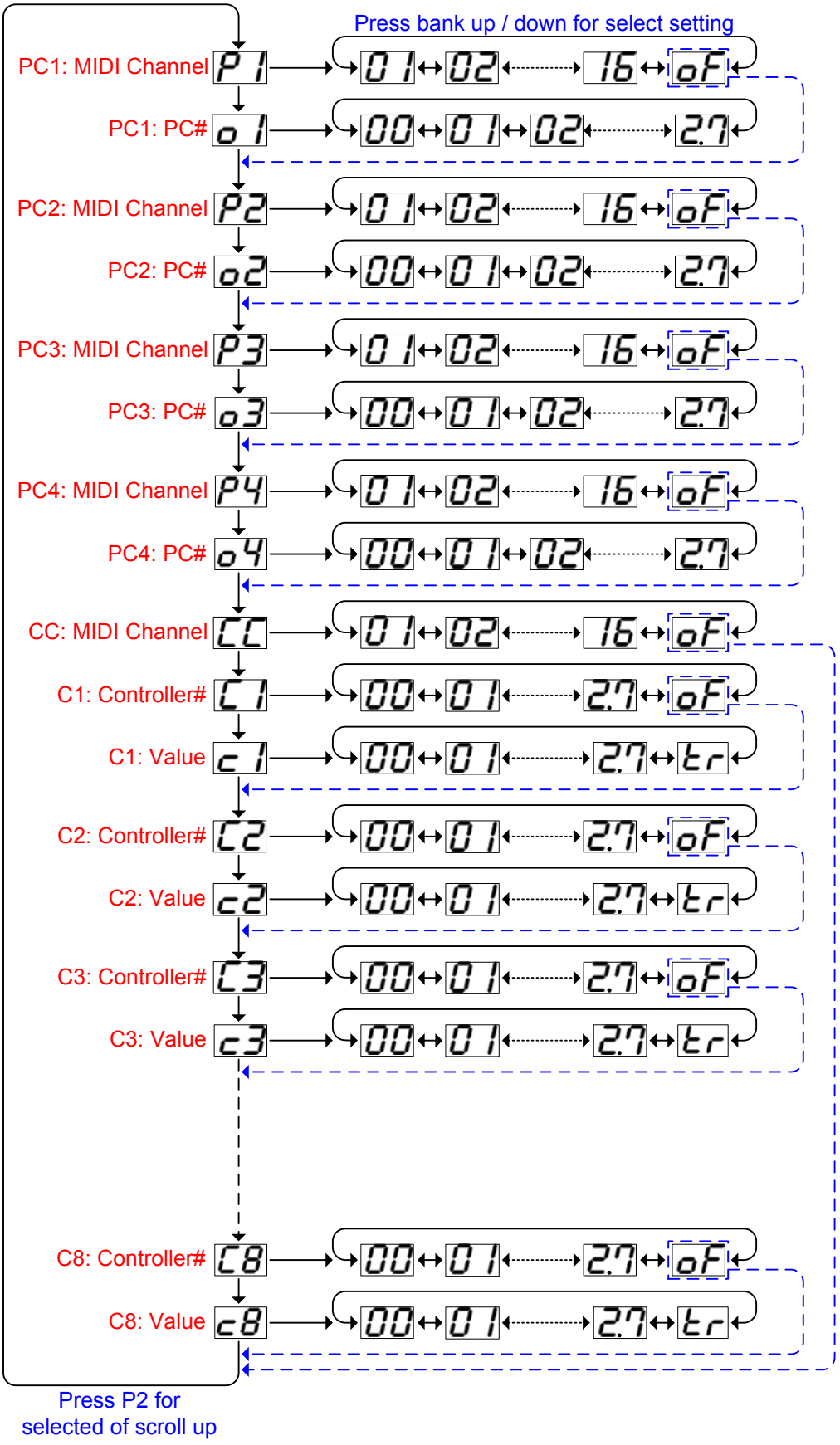
## Programming Mode Entry.

When you supply power to the FCB4N2 unit it goes in to operating mode automatically. If you want to program a preset then you need to enter programming mode by following these steps:

1. Select the preset that you want to configure by using the BANK and PATCH buttons.
2. Press both **BANK UP** and **BANK DOWN** switches together and hold on until the **BANK/PROGRAM** display shows the characters below:




3. The **BANK/PROGRAM** display as shown above means *"Programming Mode Entry"* then release the **BANK UP** and **BANK DOWN** switches.
4. As you selected a preset already then the **BANK/PROGRAM** display will be is flashing **"P1"** so you are now ready to program and can set parameters as below:


Press bank up / down for select setting
PC1: MIDI Channel
PC1: PC#
PC2: MIDI Channel
PC2: PC#
PC3: MIDI Channel
PC3: PC#
PC4: MIDI Channel
PC4: PC#
CC: MIDI Channel
C1: Controller#
C1: Value
C2: Controller#
C2: Value
C3: Controller#
C3: Value
C8: Controller#
C8: Value
Press P2 for
selected of scroll up

5. As shown on the diagram above you can set each parameter for the selected preset step by step. If you don't want to transmit some MIDI messages you can set them to **"oF"** (meaning "OFF") and skip to the next parameter.
6. You can save settings to a preset memory by pressing the **P4** switch. The FCB4N2 will exit programming mode and will return back to the operation mode.
7. If you don't want to save any changes please press **P3** switch. The FCB4N2 will exit programming mode without saving any changes and return back to the operation mode.

**Note:** You can press **P1** switch to see the current setting topic/menu.

## Factory Restore

You can reset the FCB4N2 to the factory default settings. The data that you saved in the EEPROM memory will be erased and the unit returned back the factory default settings. You can restore the factory default by following these steps:

1. Unplug the power from the FCB4N2 unit.
2. Press and hold **P4** switch if you want to start from MIDI PC#0 at first in the **Bank1-P1** or press and hold **P3** switch if you want to start from MIDI PC#1 (ie: POD2.0 needed).
3. Plug the power into the FCB4N2 unit.
4. The **BANK/PROGRAM** display will be flashing with a dot, it is processing a restore.
5. Once you see the display is on the unit is processing and you can release the **P4** switch.
6. Wait for a moment until restore process has completed. The FCB4N2 will be initialized with the factory default settings.

## MIDI Implementation

| | | |
|---|---|---|
| MIDI Channel: (Transmitted) | Default: Changed: | 1 1 - 16 |
| Program Change#: | 0 – 127 | can be setting up to 4 program change messages transmitted per preset. (With different MIDI channels) |
| Controller#: | 0 – 127 | can be setting up to 8 controllers with transmitted per preset. (With a CC MIDI channel) |
| Control Change Value: | 0 – 127 : tr | setting value in each controller. momentary for toggle the control change value by value 0-63 = OFF (momentary off value = 0) value 64-127 = ON (momentary on value = 127) |

The FCB4N2 can be transmitting MIDI messages with 4PC and 8CC per preset. The programming mode can be setting follow by the default setting below:

| | | |
|---|---|---|
| PC1 MIDI Channel#: | CH#1 – CH#16 | *(selectable but default is CH#1)* |
| PC1 Program Change#: | PC#0 – PC#127 | *(selectable but default is PC#0)* |
| PC2 MIDI Channel#: | CH#1 – CH#16 | *(selectable but default is OFF)* |
| PC2 Program Change#: | PC#0 – PC#127 | *(selectable but default is PC#0)* |
| PC3 MIDI Channel#: | CH#1 – CH#16 | *(selectable but default is OFF)* |
| PC3 Program Change#: | PC#0 – PC#127 | *(selectable but default is PC#0)* |

| | | |
|---|---|---|
| PC4 MIDI Channel#: | CH#1 – CH#16 | *(selectable but default is OFF)* |
| PC4 Program Change#: | PC#0 – PC#127 | *(selectable but default is PC#0)* |
| CC MIDI Channel#: | CH#1 – CH#16 | *(selectable but default is OFF)* |
| CC1 Controller#: | CC#0 – CC#127 | *(selectable but default is OFF)* |
| CC1 Control Value#: | 0 – 127 | *(selectable but default value is 127)* |
| CC2 Controller#: | CC#0 – CC#127 | *(selectable but default is OFF)* |
| CC2 Control Value#: | 0 – 127 | *(selectable but default value is 127)* |
| CC3 Controller#: | CC#0 – CC#127 | *(selectable but default is OFF)* |
| CC3 Control Value#: | 0 – 127 | *(selectable but default value is 127)* |
| CC4 Controller#: | CC#0 – CC#127 | *(selectable but default is OFF)* |
| CC4 Control Value#: | 0 – 127 | *(selectable but default value is 127)* |
| CC5 Controller#: | CC#0 – CC#127 | *(selectable but default is OFF)* |
| CC5 Control Value#: | 0 – 127 | *(selectable but default value is 127)* |
| CC6 Controller#: | CC#0 – CC#127 | *(selectable but default is OFF)* |
| CC6 Control Value#: | 0 – 127 | *(selectable but default value is 127)* |
| CC7 Controller#: | CC#0 – CC#127 | *(selectable but default is OFF)* |
| CC7 Control Value#: | 0 – 127 | *(selectable but default value is 127)* |
| CC8 Controller#: | CC#0 – CC#127 | *(selectable but default is OFF)* |
| CC8 Control Value#: | 0 – 127 | *(selectable but default value is 127)* |
| | | |
| Bank rank: | Bank#1 – Bank#32 | |
| Total Presets: | 128 Presets | |

## MIDI Cable Support

The FCB4N2 is a standard MIDI foot controller that you can connect to any MIDI equipment you want via a standard 5 pin MIDI cable. If you want to supply phantom power into the FCB4N2 unit, it is available by using a 7 pin midi cable with pins 6 and 7 used for the power supply. The polarity does not matter for those pins. If you want to supply phantom power via a 5 pin midi cable then the circuit reserved MIDI DIN pin 2 for ground and pin 3 for supply but you have move a jumper on the pcb to activate this. We disable this phantom power for protection of your MIDI devices. Please read your MIDI device's instruction before enabling the phantom power.